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International Application No. PCT/DK03/00243
International Search Report

Attorney Docket No. 6495-0075WOUS

**METHOD FOR MEASURING CURRENTS IN A MOTOR CONTROLLER
AND MOTOR CONTROLLER USING SUCH METHOD**

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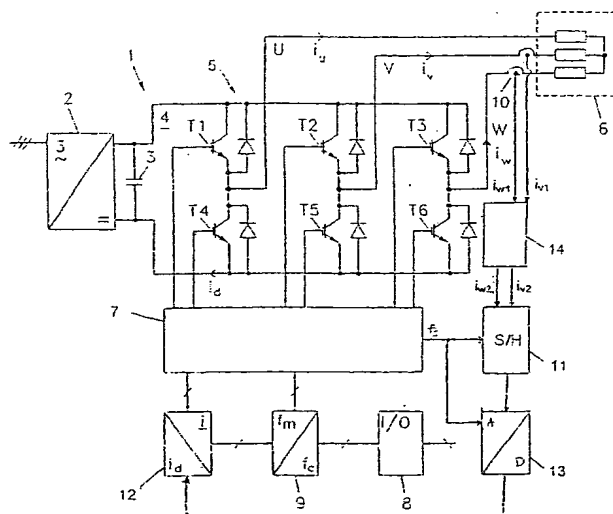


(43) International Publication Date
23 October 2003 (23.10.2003)

PCT

(10) International Publication Number
WO 03/087855 A1

- (51) International Patent Classification⁷: **G01R 19/00**, 15/20, H02P 7/29
- (21) International Application Number: PCT/DK03/00243
- (22) International Filing Date: 11 April 2003 (11.04.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
PA 2002 00572 17 April 2002 (17.04.2002) DK
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- (54) Title: METHOD FOR MEASURING CURRENTS IN A MOTOR CONTROLLER AND MOTOR CONTROLLER USING SUCH METHOD
- (74) Agent: **DANFOSS A/S**; Patent Department, DK-6430 Nordborg (DK).
- (81) Designated States (*national*): AM, AT, AU, BA, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HR, HU, IL, IN, IS, JP, KR, KZ, LT, LU, LV, MD, MK, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SK, TR, UA, US, UZ, VN, YU, ZA.
- (84) Designated States (*regional*): Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).
- Published:**
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



(57) Abstract: The invention relates to a method for measuring currents in a motor controller. Some current sensing devices placed on the motor wires or inside the motor controller provide low amplitude output signals thus complicating sampling and data processing. In order to improve the signal/noise ratio, an oversampling technique is disclosed which makes use of a differential transmission of the output signal. Further, by applying intelligent sorting techniques on the sampled data, a substantial improvement in the signal/noise ratio can be obtained. The invention also concerns a motor controller using this method, and discloses the use of a power card and a control card, where the current sensing device is placed on the power card and a differential amplifier is placed on the control card. The gain of the differential amplifier is controlled by components placed on the power card as well as on the control card.

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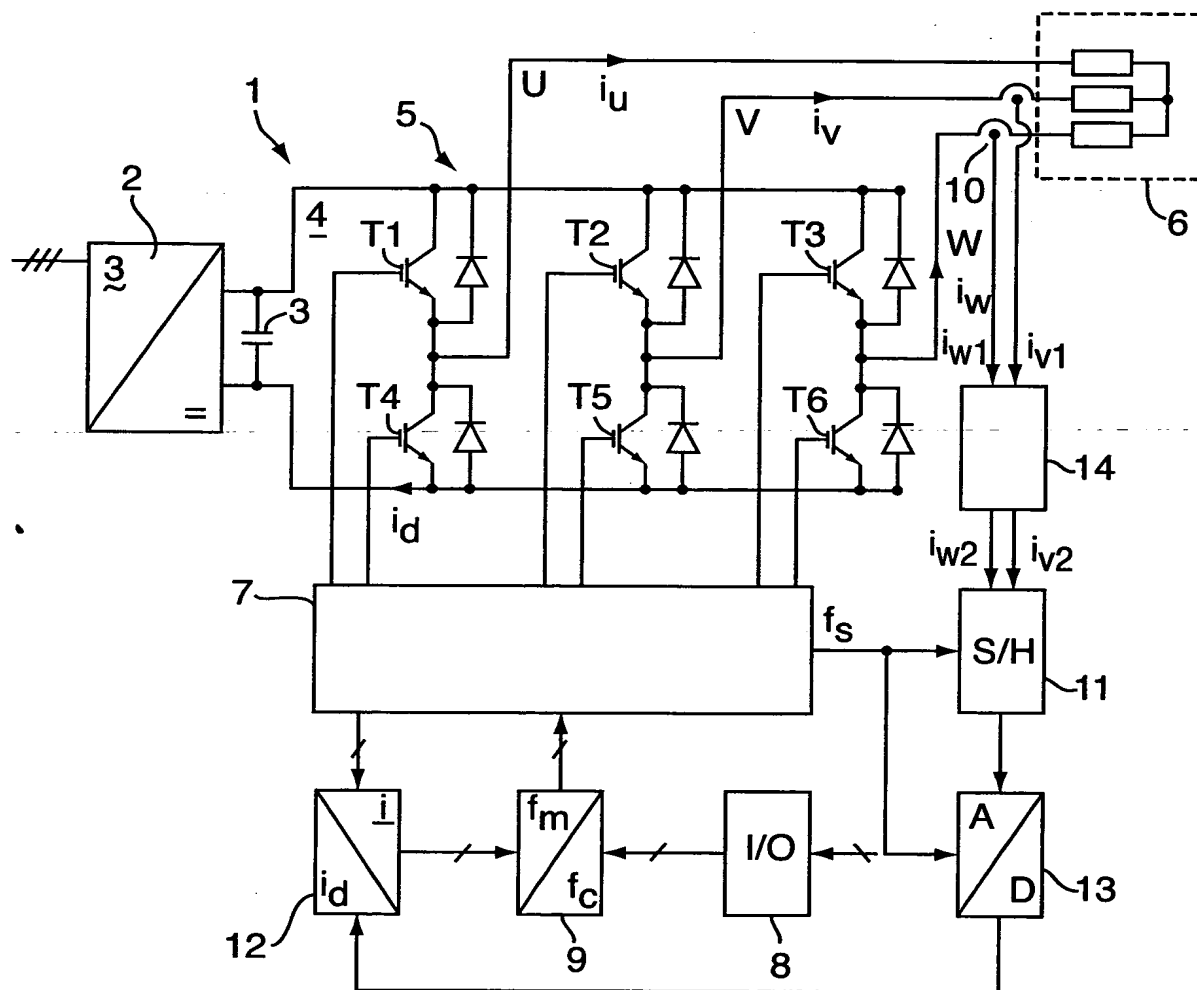
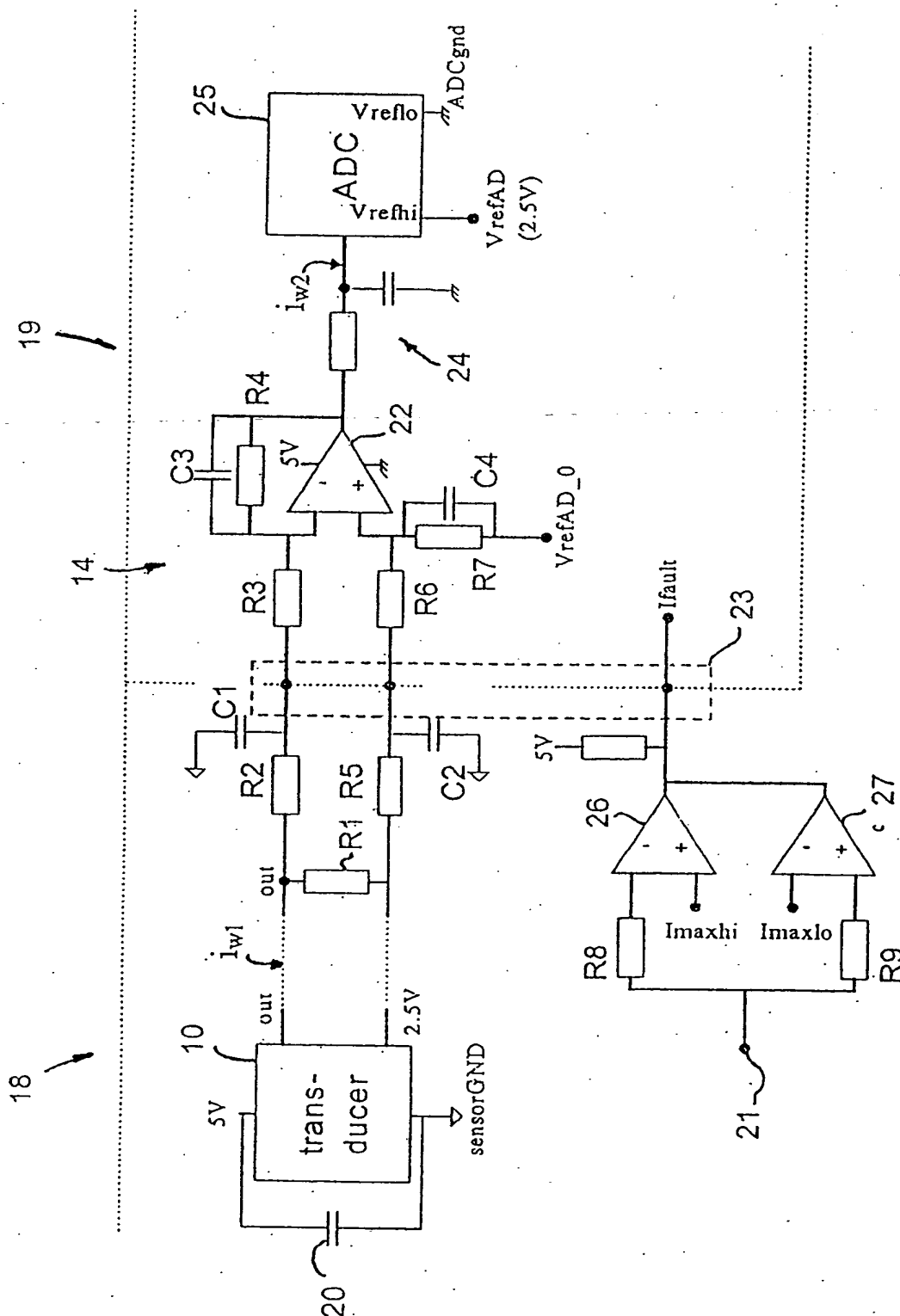


Fig.1



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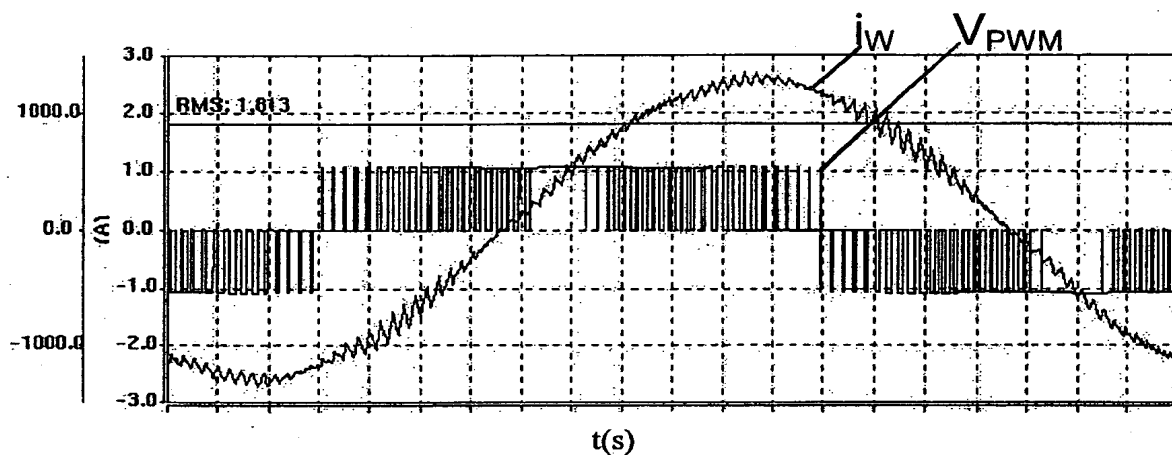


Fig.3

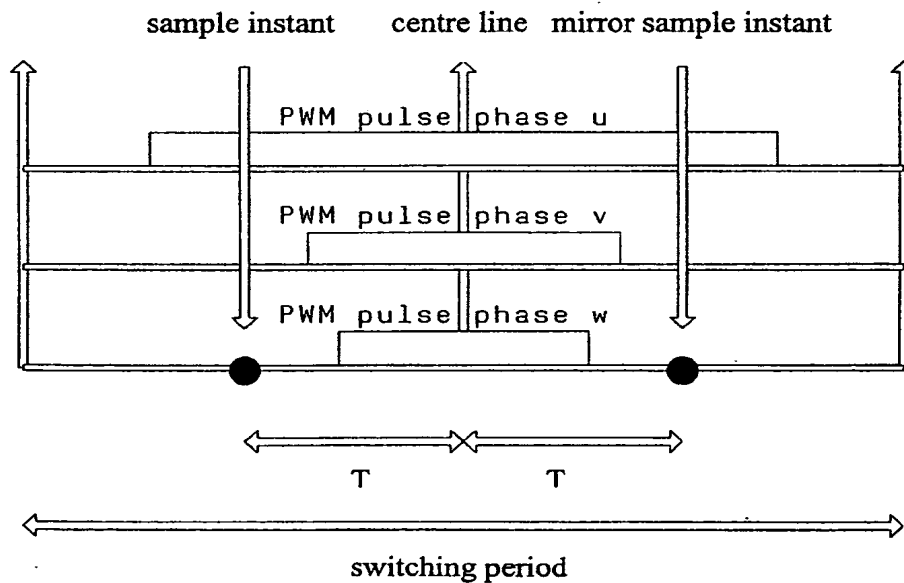


Fig.6

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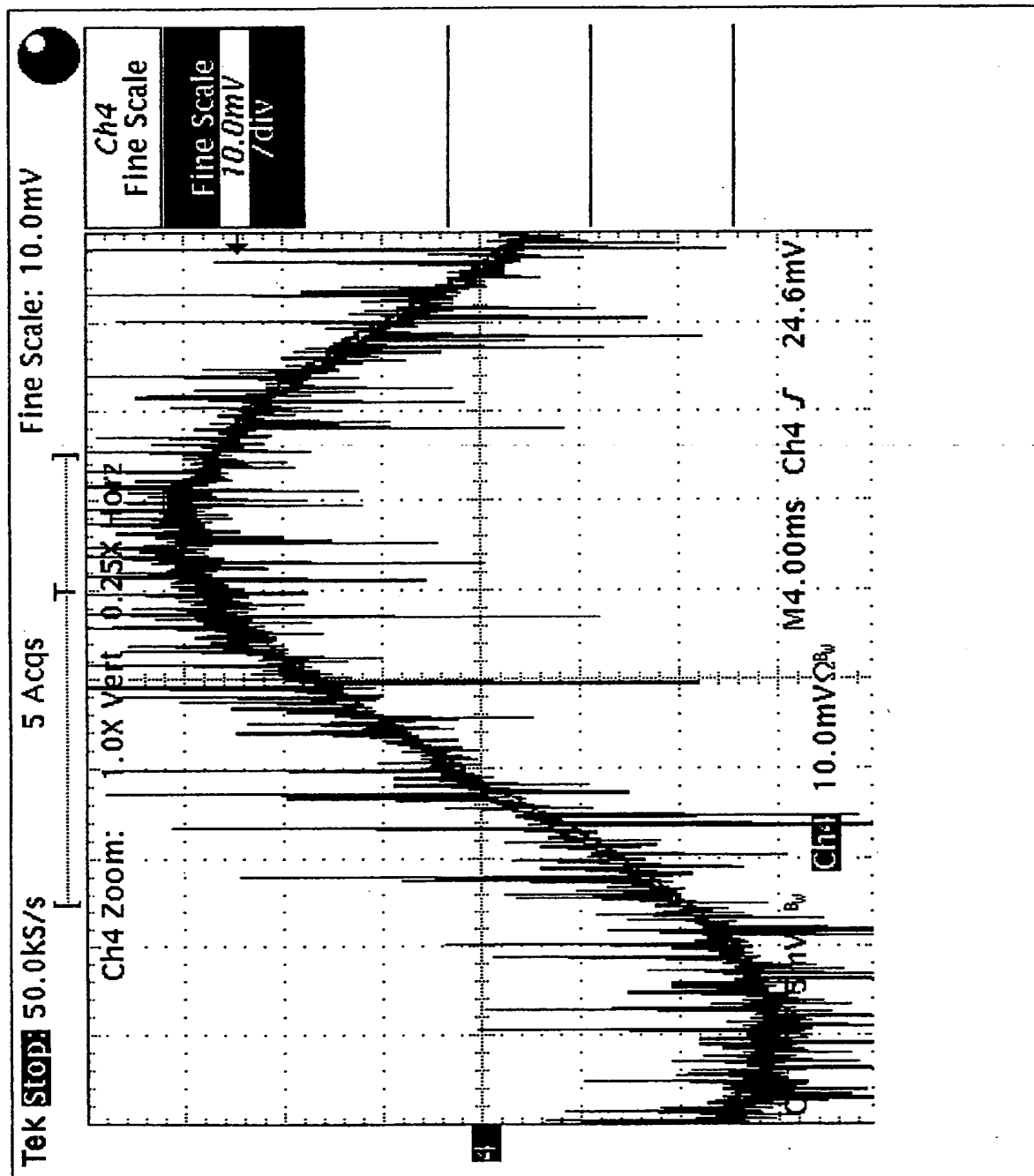


Fig.4

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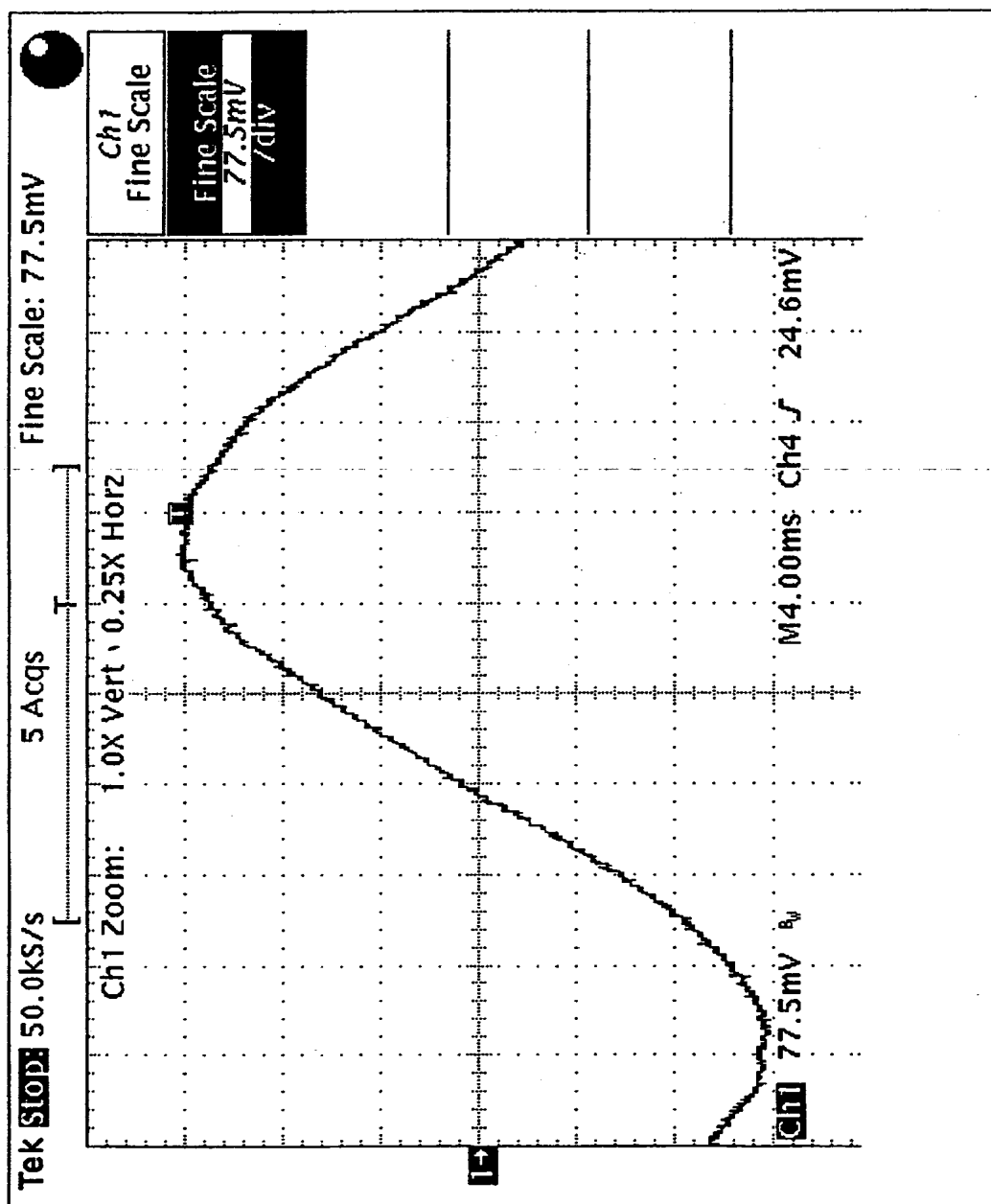


Fig.5